

What is claimed is:

1. A substrate with a transparent conductive film, comprising a transparent substrate, and a transparent conductive film formed on a surface of said transparent substrate, wherein said transparent conductive film has a work function of 4.9 to 5.5 eV, a surface roughness of 1 to 10 nm, and a specific resistance of $1.6 \times 10^{-4} \Omega \cdot \text{cm}$ or less.

2. A substrate with a transparent conductive film, according to claim 1, wherein said transparent conductive film is formed on the surface of said transparent substrate by an ion plating method by using indium tin oxide which is a mixture of tin oxide and indium oxide as a material to be vaporized, and wherein said indium tin oxide has a tin oxide content of 4 to 6 wt%.

3. An organic electroluminescence device comprising:

a substrate with a transparent conductive film, including a transparent substrate, and a transparent conductive film formed on a surface of said transparent substrate, wherein said transparent conductive film has a work function of 4.9 to 5.5 eV, a surface roughness of 1 to 10 nm, and a specific resistance of $1.6 \times 10^{-4} \Omega \cdot \text{cm}$ or less; and

a multilayer film including a hole transport layer formed of an organic material, said multilayer film being laminated on a surface of said transparent conductive film of said substrate with said transparent conductive film.

4. An organic electroluminescence device according to claim 3, wherein an energy barrier between said transparent conductive film and said hole transport layer is equal to or smaller than 0.7 eV.

5. An organic electroluminescence device according to

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